

In re Application of SUTTON et al.  
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### **REMARKS**

The Office action has been carefully considered. The Office action rejected claims 1-4, 6-8, 10-13, 17, 19-37, and 42-48 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,125,394 to Rabinovich et al. ("Rabinovich") in view of U.S. Patent No. 6,701,323 B2 to Sashino et al. ("Sashino") and in further view of U.S. Patent No. 6,839,723 to Sugimoto et al. ("Sugimoto"). Further, the Office action rejected claims 5 and 9 under 35 U.S.C. § 103(a) as being unpatentable over Rabinovich in view of Sashino and Sugimoto and in further view of U.S. Patent No 5,987,504 to Toga et al. ("Toga"). Further yet, the Office action rejected claim 14 under 35 U.S.C. § 103(a) as being unpatentable over Rabinovich in view of Sashino and Sugimoto and in further view of U.S. Patent No 6,839,723 to Choquier et al. ("Choquier"). Still further, the Office action rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Rabinovich in view of Sashino and Sugimoto and in further view of U.S. Patent No 6,789,105 B2 to Ludwig et al. ("Ludwig"). Still further yet, the Office action rejected claims 16, 18, and 38-40 under 35 U.S.C. § 103(a) as being unpatentable over Rabinovich in view of Sashino and Sugimoto and in further view of *Exotica: A Project on Advanced Transaction Management and Workflow System* by C. Mohan. ("Mohan"). The Office action rejected claim 41 under 35 U.S.C. § 103(a) as being unpatentable over Rabinovich in view of Sashino, Sugimoto, and Ludwig and in further view of U.S. Patent No 5,978,381 to Perlman et al. ("Perlman"). Finally, the Office action rejected claim 16 under 35 U.S.C. § 112, second paragraph for failing to comply with the written description requirement. Applicants respectfully disagree.

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By present amendment, claims 1, 24, 25, 38 and 42 have been amended for clarification and not in view of the prior art. Applicants submit that the claims as filed were patentable over the prior art of record, and that the amendments herein are for purposes of clarifying the claims and/or for expediting allowance of the claims and not for reasons related to patentability. Reconsideration is respectfully requested.

Applicants thank the Examiner for the interview held (by telephone) on May 5, 2005. During the interview, the Examiner and applicants' attorney discussed the claims with respect to the prior art. The essence of applicants' position is incorporated in the remarks below.

Prior to discussing reasons why applicants believe that the claims in this application are clearly allowable in view of the teachings of the cited and applied references, a brief description of the present invention is presented.

The present invention is directed to a multiple device management method and system. The system may include a mechanism to execute a single command on one controller computer that may then invoke actions on one or more other controlled computers, typically referred to as nodes. An operation may comprise the execution of a scripted set of commands, execution of a binary program, or a number of other types of operations. The mechanism may work with sets of computers as if they were a single computer, whereby, for example, management of computing devices is greatly simplified, and the cost of managing computing devices in a data center is significantly reduced.

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In one implementation, the present invention may provide an architecture comprising a controller on one computer that may manage multiple other computers, each containing agent software allowing each respective controlled computer to be managed by the controller. In general, the controller provides a central representation of the multiple nodes managed thereby, from which actions can be initiated against the nodes, which may be selected individually or by sets to which the nodes may be assigned. The controller may communicate with the nodes using a messaging format, such as one derived from XML (eXtensible Markup Language), using a replaceable underlying transport layer for network communication.

In this manner, the controller may provide a defined way to represent available nodes in a data center, their organization into sets, and the results of ongoing and completed operations. For example, a schema may be used to persist the representation of the available nodes, and sets of nodes (e.g., as grouped together by an administrator typically according to some criterion, such as administrative convenience, operational purposes or other criteria). The schema may also be used to store a record of the results of each action on a storage device accessible to the controller, along with pending and performed operations, and jobs.

Note that the above description is for example and informational purposes only, and should not be used to interpret the claims, which are discussed below.

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Rejection under §112

The Office action rejected claim 16 as being indefinite for failing to comply with the written description requirement. The Office action contends that the term "persisting the results" was not described in the specification. Applicants respectfully disagree and point out that not only is the concept of "persisting" (*i.e.*, maintaining a running record of results through subsequent iterations of data manipulation) well known in the art, the term and concept is discussed in at least two different sections of the applicants' specification. See generally, the summary of the invention and pages 20-22 of the detailed description. Applicants submit that the term, "persisting the results" is defined and request that the §112 rejection of claim 16 be withdrawn.

Rejections under §103

Turning to the rest of the claims, amended claim 1 recites in a computer network, a method, comprising maintaining a plurality of sets at a controller, each set comprising a grouping of at least one computing device, providing at the controller a selection corresponding to at least one computing device, providing at the controller a job corresponding to at least one operation to perform on the selection, sending a message from the controller to each computing device in the selection, the message instructing the computing device that receives the message to execute the job, and at the controller, storing results of the job from each computing device in the selection.

The Office action rejected claim 1 under §103(a) as being unpatentable over Rabinovich in view of Sashino and in further view of Sugimoto. More specifically,

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the Office action contends that Rabinovich teaches a controller (referencing a selection unit at column 2, lines 54-58 of Rabinovich), a set comprising a grouping of at least one computing device (referencing column 2, lines 49-52 of Rabinovich), maintaining at least one set at the controller (referencing column 2, lines 55-58 and column 4, lines 40-44 of Rabinovich), providing at the controller a selection corresponding to at least one computing device (referencing column 2, lines 53-56 and column 4, lines 39-44 of Rabinovich), and providing at the controller a job corresponding to at least one operation to perform on the selection (referencing column 1, lines 20-23 and column 5, lines 24-29 of Rabonivich).

The Office action acknowledges that Rabinovich fails to teach sending a message from the controller to each computing device in the selection, the message instructing the computing device that receives the message to execute the job, and at the controller, storing results of the job from each computing device in the selection. However, the Office action contends that Sashino does teach sending a message from the controller to each computing device in the selection, the message instructing the computing device that receives the message to execute the job (referencing column 8, lines 6-10, column 3, lines 50-55 and column 10, lines 38-41). Further, the Office action contends that Sugimoto does teach storing results of the job from each computing device in the selection (referencing column 12, lines 12-15). The Office action concludes that it would have been obvious to a person skilled in the art at the time of the invention to have combined the teachings of Rabinovich, Sashino, and Sugimoto because Sashino's sending feature would provide load balancing to Rabinovich and Sugimoto's store

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result feature would save information for use later. Applicants respectfully disagree.

To establish prima facie obviousness of a claimed invention, all of the claim recitations must be taught or suggested by the prior art; (*In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)), and "all words in a claim must be considered in judging the patentability of that claim against the prior art;" (*In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)). Further, if prior art, in any material respect teaches away from the claimed invention, the art cannot be used to support an obviousness rejection. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed Cir. 1997). Moreover, if a modification would render a reference unsatisfactory for its intended purpose, the suggested modification / combination is impermissible. See MPEP § 2143.01.

Applicants submit that the Office action has failed to establish a prima facie case for obviousness. The cited and applied references represent a mismatch of prior art with little correlation to each other, from which the Office action picks out phrases as examples for an obviousness argument. More specifically with regard to claim 1, the cited and applied references do not teach applicants' invention as claimed. Instead of considering all of the words of claim 1, the Office action merely picks out phrases from applicants' recitations and cites various references as allegedly prior art. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

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For example, Rabinovich is directed to a well known system and method for selecting resources based upon utilization rates of the resources. As such, when additional resources are added to an existing single group of resources, usage of the new resource is appropriately utilized for resource balancing. (See generally, the abstract, FIG. 3, and column 5, lines 35-62). As correctly noted by the Office action, Rabinovich is silent as to sending messages relating to jobs and/or selections of jobs. Further, Rabinovich is also silent to storing any result of any job/selection that may occur. Apparently the Office action contends that Rabinovich is essentially an example of prior art that maintains a group of computing devices and provides for a means of selecting among the group.

Together with Sashino (which is cited merely an example of sending a message that may cause execution of a job) and Sugimoto (which is cited merely as an example of storing returned messages), the Office action seems to paste together several cites from unrelated references to arrive at an obviousness conclusion. A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993).

Furthermore, applicants submit that the Office action is employing hindsight reasoning to arrive at an obviousness conclusion. As a matter of law, obviousness may not be established using hindsight obtained in view of the teachings or suggestions of the applicants. *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d

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1540, 1551, 1553, 220 USPQ 303, 311, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). To guard against the use of such impermissible hindsight, obviousness needs to be determined by ascertaining whether the applicable prior art contains any suggestion or motivation for making the modifications in the design of the prior art article in order to produce the claimed design. The mere possibility that a prior art teaching could be modified or combined such that its use would lead to the particular limitations recited in a claim does not make the recited limitation obvious, unless the prior art suggests the desirability of such a modification. See *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

In addition to the reasons discussed above, applicants submit that the prior art of record fails to teach or suggest maintaining a plurality of sets at a controller, each set comprising a grouping of at least one computing device. Rabinovich certainly only teaches a single set of resources that may be organized and maintained by a resource manager. Together with the remaining recitations of claims 1, nowhere in any prior art of record can there be found any teaching or suggestion of maintaining a plurality of sets at a controller, providing a selection, providing a job corresponding to at least one operation to perform on the selection, sending a message to execute the job, and storing results of the job, as is recited in claim 1. Applicants submit that claim 1 is allowable over the prior art of record for at least these reasons.

Applicants respectfully submit that dependent claims 2-4, 6-8, and 10-13, by similar analysis, are allowable. Each of these claims depends either directly or indirectly from claim 1 and consequently includes the recitations of independent



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claim 1. As discussed above, Rabinovich, Sashino, and Sugimoto, whether considered alone or in any permissible combination at law, fail to teach or suggest the recitations of claim 1 and therefore these claims are also allowable over the prior art of record. In addition to the recitations of claim 1 noted above, each of these dependent claims includes additional patentable elements.

The Office action rejected claims 5 and 9 as being unpatentable over the combination of the teachings of Rabinovich, Sashino, Sugimoto, and Toga. Applicants again maintain that a prima facie case for obviousness has not been established. Rather, the same fallible argument is presented wherein yet another reference (Toga) is cited as teaching a phrase of the claim language (using a network address) but lacks the motivation to be combined with other references. As discussed above, Rabinovich, Sashino, and Sugimoto, whether considered alone or in any permissible combination at law, fail to teach or suggest the recitations of claim 1 and therefore these claims are also allowable over the prior art of record. Simply citing Toga does not remedy the shortcomings of the teachings of the prior art of record nor provides motivation for combining the prior art of record. Applicants submit that claims 5 and 9 are allowable over the prior art for at least these reasons.

The Office action rejected claim 14 as being unpatentable over the combination of the teachings of Rabinovich, Sashino, Sugimoto, and Chocquier. The Office action also rejected claim 15 as being unpatentable over the combination of the teachings of Rabinovich, Sashino, Sugimoto, and Ludwig. And the Office action rejected claim 16 as being unpatentable over the combination of

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the teachings of Rabinovich, Sashino, Sugimoto, and Mohan. Applicants again maintain that a prima facie case for obviousness has not been established for each of these rejections. Rather, the same fallible argument is presented wherein yet another reference (Chocquier for claim 14, Ludwig for claim 15, and Mohan for claim 16) is cited as teaching a phrase of applicants' claim language (setting a threshold level as recited in claim 14, storing data in a storage as recited in claim 15, and persisting data as recited in claim 16) but lacks the motivation to be combined with other references. As discussed above, Rabinovich, Sashino, and Sugimoto, whether considered alone or in any permissible combination at law, fail to teach or suggest the recitations of claim 1 and therefore these dependent claims are also allowable over the prior art of record. Simply citing Chocquier, Ludwig, or Mohan does not remedy the shortcomings of the teachings of the prior art of record nor provides motivation for combining the prior art of record. Applicants submit that claims 14, 15 and 16 are allowable over the prior art for at least these reasons.

Turning to the next independent claim, claim 17 recites in a computer network, a data structure comprising a schema, the schema configured to enable a plurality of computing nodes to be controlled by a controller computer, the schema including a plurality of device objects, each device object identifying a computing node capable of being controlled by the controller, at least one set object, each set object identifying a group of at least one computing node identified by a device object, and a job object, the job object specifying data corresponding to an operation to be executed by each computing node grouped together via a set object.

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The Office action rejected claim 17 as unpatentable over Rabinovich in view of Sashino and in further view of Sugimoto. Specifically, the Office action cites the same rationale for the rejection of claim 17 as was discussed above with respect to the rejection of claim 1. Applicants respectfully disagree.

Applicants submit that the Office action has failed to establish a prima facie case for obviousness. As discussed above regarding claim 1, the cited and applied references represent a mismatch of prior art with little correlation to each other, from which the Office action picks out phrases as examples for an obviousness argument. More specifically with regard to claim 17, the cited and applied references do not teach applicants' invention as claimed. Instead of considering all of the words of claim 17, the Office action merely picks out phrases from applicants' recitations and cites various references as allegedly prior art.

In addition to the reasons discussed above and with respect to claim 1, applicants submit that the prior art of record fails to teach or suggest a data structure comprising a schema, the schema configured to enable a plurality of computing nodes to be controlled by a controller computer. A schema is not taught or suggested anywhere in any prior art of record, and together with the remaining recitations of claim 17, applicants submit that claim 17 is allowable over the prior art of record for at least these reasons.

Applicants respectfully submit that dependent claims 19-24, by similar analysis, are allowable. Each of these claims depends either directly or indirectly from claim 17 and consequently includes the recitations of independent claim 17. As discussed above, Rabinovich, Sashino, and Sugimoto, whether considered

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alone or in any permissible combination at law, fail to teach or suggest the recitations of claim 17, and therefore these dependent claims are also allowable over the prior art of record. In addition to the recitations of claim 17 noted above, each of these dependent claims includes additional patentable elements.

The Office action rejected claim 18 as being unpatentable over the combination of the teachings of Rabinovich, Sashino, Sugimoto, and Mohan. Applicants again maintain that a prima facie case for obviousness has not been established. Rather, the same fallible argument is presented wherein yet another reference (Mohan) is cited as teaching a phrase of applicants' claim language (persisting data) but lacks the motivation to be combined with other references. As discussed above, Rabinovich, Sashino, and Sugimoto, whether considered alone or in any permissible combination at law, fail to teach or suggest the recitations of claim 17, and therefore dependent claim 18 is also allowable over the prior art of record. Simply citing Mohan does not remedy the shortcomings of the teachings of the prior art of record nor provides motivation for combining the prior art of record. Applicants submit that claim 18 is allowable over the prior art for at least these reasons.

Turning to the next independent claim, amended claim 25 recites in a computer network, a system, comprising a controller, the controller configured to receive a selection corresponding to at least one node among a plurality of nodes, a node identified in the selection, the node including agent software connected for communication with controller software on the controller, a job maintained by the controller, the job corresponding to at least one operation to perform on the

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selection, a transport configured to communicate a message containing data corresponding to the job from the controller software to the agent software of the node, the message instructing the agent software to execute the job, the agent software of the node executing the job and returning results to the controller in response to receiving the message, and a data store at the controller, the controller storing the results from the agent software in the data store.

The Office action rejected claim 25 as unpatentable over Rabinovich in view of Sashino and in further view of Sugimoto. Specifically, the Office action cites the same rationale for the rejection of claim 25 as was discussed above with respect to the rejections of claim 1 and 17. Applicants respectfully disagree.

Applicants submit that the Office action has failed to establish a prima facie case for obviousness. As discussed above regarding claims 1 and 17, the cited and applied references represent a mismatch of prior art with little correlation to each other, from which the Office action picks out phrases as examples for an obviousness argument. More specifically with regard to claim 25, the cited and applied references do not teach applicants' invention as claimed. Instead of considering all of the words of claim 25, the Office action merely picks out phrases from applicants' recitations and cites various references as allegedly prior art.

In addition to the reasons discussed above regarding claims 1 and 17, applicants submit that the prior art of record fails to teach or suggest a controller configured to receive a selection corresponding to at least one node among a plurality of nodes. Rabinovich certainly only teaches a single set of resources that

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may be organized and maintained by a resource manager. Applicants submit that claim 25 is allowable over the prior art of record for at least these reasons.

Applicants respectfully submit that dependent claims 26-37, by similar analysis, are allowable. Each of these claims depends either directly or indirectly from claim 25 and consequently includes the recitations of independent claim 25. As discussed above, Rabinovich, Sashino, and Sugimoto, whether considered alone or in any permissible combination at law, fail to teach or suggest the recitations of claim 25 and therefore these claims are also allowable over the prior art of record. In addition to the recitations of claim 25 noted above, each of these dependent claims includes additional patentable elements.

Turning to the next independent claim, amended claim 38 recites in a computer network, a method comprising selecting, as a selected set among a plurality of sets, a set comprising a plurality of computing devices, and instructing a controller to perform an operation to the set, the controller communicating with each computing device in the set to request performance of the operation and receive a result of the requested operation, the controller logging the result.

The Office action rejected claim 38 as unpatentable over Rabinovich in view of Sashino and in further view of Sugimoto and in further view of Mohan. Specifically, the Office action cites the same rationale for the rejection of claim 38 as was discussed above with respect to the rejections of claim 1. Applicants respectfully disagree.

Applicants submit that the Office action has failed to establish a prima facie case for obviousness. As discussed above regarding claims 1, 17 and 25, the

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cited and applied references represent a mismatch of prior art with little correlation to each other, from which the Office action picks out phrases as examples for an obviousness argument. More specifically with regard to claim 38, the cited and applied references do not teach applicants' invention as claimed. Instead of considering all of the words of claim 38, the Office action merely picks out phrases from applicants' recitations and cites various references as allegedly prior art.

In addition to the reasons discussed above regarding claims 1, 17, and 25, applicants submit that the prior art of record fails to teach or suggest selecting, as a selected set among a plurality of sets, a set comprising a plurality of computing devices. Rabinovich certainly does not teach a plurality of sets, but rather a single set of resources that may be organized and maintained by a resource manager. Applicants submit that claim 38 is allowable over the prior art of record for at least these reasons.

Applicants respectfully submit that dependent claims 39-40, by similar analysis, are allowable. Each of these claims depends either directly or indirectly from claim 38 and consequently includes the recitations of independent claim 38. As discussed above, Rabinovich, Sashino, Sugimoto, and Mohan whether considered alone or in any permissible combination at law, fail to teach or suggest the recitations of claim 38 and therefore these dependent claims are also allowable over the prior art of record. In addition to the recitations of claim 38 noted above, each of these dependent claims includes additional patentable elements.

The Office action rejected claim 41 as being unpatentable over the combination of the teachings of Rabinovich, Sashino, Sugimoto, Mohan, Ludwig,

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and Perlman. Applicants again maintain that a prima facie case for obviousness has not been established. Rather, the same fallible argument is presented wherein two more references (Ludwig and Perlman) are each cited as teaching a phrase of applicants' claim language (storing data in a storage and retrying failed operations) but each lacks the motivation to be combined with other references. As discussed above, Rabinovich, Sashino, Sugimoto, and Mohan whether considered alone or in any permissible combination at law, fail to teach or suggest the recitations of claim 38 and therefore dependent claim 41 is also allowable over the prior art of record. Simply citing Ludwig and Perlman does not remedy the shortcomings of the teachings of the prior art of record nor provides motivation for combining the prior art of record. Applicants submit that claim 41 is allowable over the prior art for at least these reasons.

Turning to the last independent claim, amended claim 42 recites in a computer network, a method comprising defining a plurality of sets, editing at least one set to add at least one controlled computing device to the set, storing the set, and at the controller, using the set to control each controlled computing device of the set.

The Office action rejected claim 42 as unpatentable over Rabinovich in view of Sashino and in further view of Sugimoto. Specifically, the Office action cites the same rationale for the rejection of claim 42 as was discussed above with respect to the rejections of claims 1 and 17. Applicants respectfully disagree.

Applicants submit that the Office action has failed to establish a prima facie case for obviousness. The cited and applied references represent a mismatch of



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prior art with little correlation to each other, from which the Office action picks out phrases as examples for an obviousness argument. More specifically with regard to claim 42, the cited and applied references do not teach applicants' invention as claimed. Instead of considering all of the words of claim 42, the Office action merely picks out phrases from applicants' recitations and cites various references as allegedly prior art.

In addition to the reasons discussed above regarding claims 1 and 17, applicants submit that the prior art of record fails to teach or suggest defining a plurality of sets. Rabinovich certainly only teaches a single set of resources that may be organized and maintained by a resource manager. Applicants submit that claim 42 is allowable over the prior art of record for at least these reasons.

Applicants respectfully submit that dependent claims 43-48, by similar analysis, are allowable. Each of these claims depends either directly or indirectly from claim 42 and consequently includes the recitations of independent claim 42. As discussed above, Rabinovich, Sashino, and Sugimoto, whether considered alone or in any permissible combination at law, fail to teach or suggest the recitations of claim 42 and therefore these claims are also allowable over the prior art of record. In addition to the recitations of claim 42 noted above, each of these dependent claims includes additional patentable elements.

For at least these additional reasons, applicants submit that all the claims are patentable over the prior art of record. Reconsideration and withdrawal of the rejections in the Office action is respectfully requested and early allowance of this application is earnestly solicited.

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### CONCLUSION

In view of the foregoing remarks, it is respectfully submitted that claims 1-48 are patentable over the prior art of record, and that the application is in good and proper form for allowance. A favorable action on the part of the Examiner is earnestly solicited.

If in the opinion of the Examiner a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney at (425) 836-3030.

Respectfully submitted,



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Albert S. Michalik, Reg. No. 37,395  
Attorney for Applicants  
Law Offices of Albert S. Michalik, PLLC  
704 - 228th Avenue NE, Suite 193  
Sammamish, WA 98074  
(425) 836-3030  
(425) 836-8957 (facsimile)

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**CERTIFICATE OF FACSIMILE TRANSMISSION**

I hereby certify that this Amendment, along with transmittal and facsimile cover sheet, are being transmitted by facsimile to the United States Patent and Trademark Office in accordance with 37 C.F.R. 1.6(d) on the date shown below:

Date: June 9, 2005

  
Albert S. Michalik

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